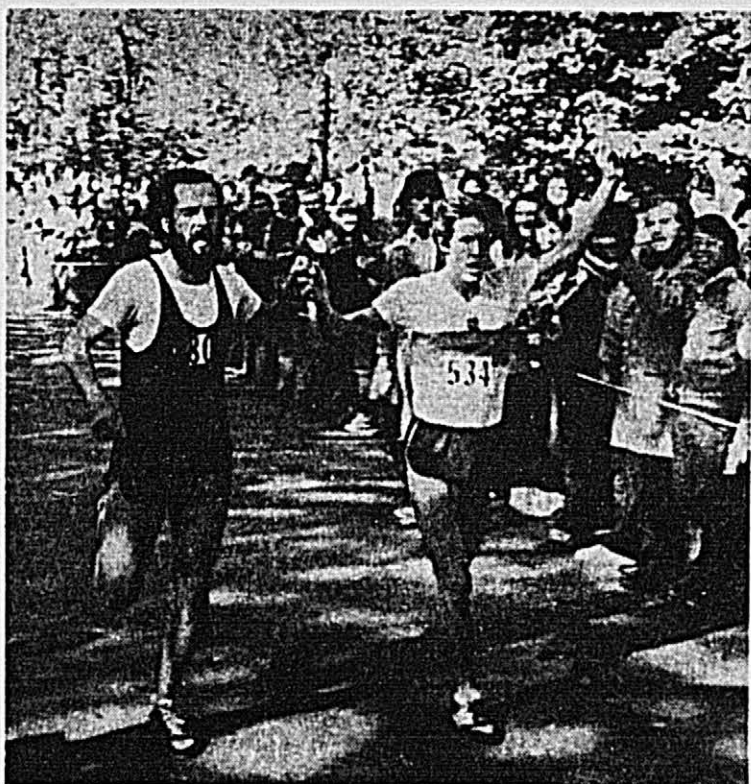




Rick Slezak and Tim Norman, co-winners of the Open House 10 kilometre race Friday. 700 runners took part.

## Preliminary inquiry:

# Héroux charges stand

by Peter Orr

The first session of the preliminary hearing on the case of Université de Montréal student Guy Héroux has ended on a sour note for the accused.

At 3:30 pm Friday Judge Ian Stalker rejected a motion by defence lawyer Réal Leblanc to dismiss the charge against the U de M student leader of theft and concealment of \$70,000.

Héroux is charged under sections 283 and 294 of the Criminal Code. The law states that an individual commits theft when he "convert(s) (a thing) to his use or to the use of another person with intent to deprive, temporarily or absolutely, the owner of it or a person who has a special property or interest in it, of the

thing, of his property, or interest in it."

The maximum penalty for theft is ten years in prison. Conviction for concealment of stolen goods carries a maximum penalty of an additional ten years.

Speaking before a courtroom packed with Héroux supporters, Leblanc argued that there are no grounds to believe that cheques in Héroux's possession were the property of the Université de Montréal. Emphasizing that the cheques were given or sent to Héroux by students, Leblanc said: "If A writes a cheque to C and voluntarily gives it to B, the cheque remains the property of A. No theft has taken place."

Secondly, Leblanc argued, there is no evidence of "intent" to steal in the Héroux case.

"Is your average university student so stupid as to try to negotiate cheques, not to Joe Blow, but to the Université de Montréal?" Leblanc asked the hearing.

The defence arguments did not convince Judge Stalker that there were insufficient grounds to warrant a trial.

His Honour explained that during a preliminary hearing the benefit of the doubt is given to the prosecution, under Canadian law.

In his concluding remarks the Municipal Court judge read the text of the law on theft repeating twice the phrase: "to deprive temporarily or absolutely" the owner of his property or of his interest in it.

After Judge Stalker's ruling on the motion to dismiss the charges against Héroux, Leblanc gave notice of his intention to call witnesses in Héroux's defence.

Defence witnesses will testify before the court of preliminary enquiry November 18, probably at the Gosford Street courthouse.

Following the November 18 "voluntary examination" Judge Stalker will rule on whether or not Héroux is to go to trial.

Testimony by witnesses for the prosecution Friday established that Héroux was arrested at 2:11 pm on May 5 in the Bank of Montreal, at the corner of Queen Mary and Côte des Neiges.

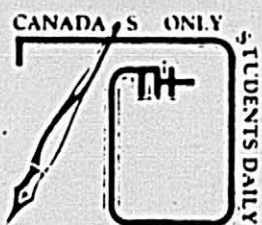
Two MUC constables had been waiting in the Bank with a warrant for Héroux's arrest since 10:00 am that morning.

Héroux was held at MUC Police Station number 31 for several hours and spent the night of May 5 in Bordeaux jail.

Héroux apparently offered no resistance whatever to arrest and made a declaration to the police that he came to be in possession of some \$70,000 in cheques and money orders because he was mandated by U de M residence students to withhold cheques from the Université de Montréal. The boycott of residence fees was a tactic to pressure the university to freeze rents in the residences.

Some 100 demonstrators picketing outside the courthouse Friday responded to the news that Héroux may be en route to a trial with shouts of "Libérons Guy Héroux condamnons U de M."

A representative of the Association Nationale des Etudiants du Québec said, "We were 4000 demonstrating yesterday (Thursday, October 23); we'll be 10,000 the next time."



## The McGill DAILY

Vol. 70, No. 30

—Monday, October 27, 1980—

Montreal

## Ann Gertler attacks disarmament 'half-measures'

by Emil Sher

Canada's record on disarmament is dismal, says Ann Gertler, UN observer for Project Ploughshares, a Canadian coalition that promotes disarmament.

"It would have been much easier to talk about Canadian armament," she told a McGill audience Thursday night.

According to Gertler, 2.5 per cent of the gross national product is allocated to the military, and Canada has agreed to increase military spending by 4 per cent per annum in real dollars.

Gertler labelled the decisions of the House of Commons Standing Committee on External Affairs and National Defence to review both the Helsinki Agreement and Canada's membership in NORAD (North America Air Defence) as "half-measures."

Gertler said Canada's independence in military policy is

a myth, asserting that "so much of our fate is governed by the U.S."

She told of a \$1 billion contract for Litton Systems (Canada), which has aided in the production of guidance systems for U.S. nuclear-tipped missiles.

Some of the \$600 million of defence products that Canada now exports per year can be attributed to the Canada/U.S. Defence Production Sharing Arrangements. Newsweek (October 27, 1980), disclosed that a U.S. Administration supplemental budget request will bring the 1981 defence budget to \$167.8 billion.

Canada's efforts to deter the arms race were criticized by Gertler, who called its global self-image into question.

"Canadians are very proud of their peace-keeping," she said, adding that "peace-keeping isn't the same as peace-making. We've done little about peace-making."

"The government keeps it a deep, dark secret that the money used for military would create more jobs than the making of military goods," said Gertler.

Canada has not heeded to UN Secretary-General Kurt Waldheim's appeal that national governments set aside 1% of their defence budgets for disarmament research and education. For Canadians, this would amount to almost five million dollars.

Gertler called the 1978 United Nations Special Session on Disarmament the impetus to the disarmament movement.

World-wide, the money spent

on the military outnumbers aid to developing countries by twenty-to-one.

The lecture was part of Disarmament Week (October 24-30) which is being sponsored by Project Ploughshares McGill.

## Robin Carlsen says Iranian revolution misunderstood

by Peter Findlay

"Some time in history we may say that the Iranian Revolution was a positive experience."

So said author Robin Carlsen speaking at McGill Friday. Carlsen was one of the few Western journalists allowed into the American embassy in Tehran.

Although the taking of the hostages was "obviously indefensible," said Carlsen believes the incident was "not as devastating and brutal as it has been portrayed."

"Whether or not (the hostage taking) will be successful we cannot say now."

Carlsen said that during his visit to the embassy in March his perception "wasn't that these were a bunch of gangsters or hoodlums."

This image Carlsen attributed primarily to "the in-

sidious conditioning of the West, based upon the Western experience."

Carlsen remarked upon the inability of the Western media to portray Iranian realities. He cited as an example the fact that "except for those of us who have taken Islamic studies I doubt that we knew of the role of the SAVAK" (the Iranian CIA-trained secret police).

Turning his remarks to the present situation in post-revolutionary Iran, Carlsen said that "the ineptitude of the present regime is perhaps the result of the desire to maintain the purity of Islam."

Carlsen characterized the militants as people who "have re-introduced the concepts of Heaven and Hell" and for whom the "Ayatollah represents what is truly Persian and wedded to Islam." This "fusion of religion and politics" has led to a "re-

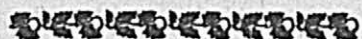
mythologization of society" in his words.

Responding to a question from the floor in reference to the severity of the new Islamic Republic toward women, Carlsen said, "I didn't feel the injunctions were inhibiting or dissonant within the context of their culture...Women appeared to me to have a great deal pride and dignity."

Carlsen said that "perhaps this is a phase through which the revolution must go."

He also described the Iranian people as believing that the "whole business of international law doesn't hold any intrinsically moral conceptions." He said the Iranians are merely fighting back against a "hated monarch who had just received \$18 million from the U.S.", prior to his overthrow.

**Inside: The Daily Science Edition looks at nuclear disarmament**





The Principal and Mrs. Johnston's Reception for International Students who are studying at McGill for the first time will be held,

Tuesday, October 28, 1980  
4:30 to 6:30 p.m.  
Redpath Hall

International Students please R.S.V.P. for your ticket at the I.S.A. office or Sadie's in the Students' Union from 9am to 5pm.



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3473 University St. (Diocesan College)  
Speaker: Glenn Smith from  
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What? A lecture  
Who? • Dr. Ross Green, Technical Advisor to the V.P. of Atomic Energy of Canada Ltd. "Why Nuclear Energy?"  
• Fernand Paré, Safety of Nuclear Energy "Record of the CANDU"  
When? Monday, October 27 1:00 PM  
Where? Union Bldg., Room B9 - B10

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McGill students: \$2 per day. For 3 days \$1.75, more than 3 days \$1.50.  
McGill Faculty and Staff: \$3.00 per day.  
All others: \$3.50 per day.

### 341 - APT., ROOMS, HOUSING

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### 350 - JOBS

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### 352 - HELP WANTED

Responsible student wanted with references to care for 2 1/2 year old boy. Monday-Friday 8:15 to 2:00 pm. After 5:00 pm, call 484-9110.

### 356 - SERVICES OFFERED

FLOORED by Accounting? Lick it before it licks you! Mastery assured. London School of Business. 735-5217, 733-8261.

### 361 - ARTICLES FOR SALE

For sale: Beaver coat - Fox trim - Size 12-14 - Good condition. \$125.00. Evenings 486-3651.

### 372 - LOST AND FOUND

Attention: Denise Perron, your pen was found in Leacock 132. Please claim at Sadie's.

LOST: A burgundy wallet near Stewart Biology Bldg. Vital ID's desperately needed. If found, please call 286-9959. REWARD.

### 383 - LESSONS OFFERED

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### 385 - NOTICES

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## Roberts: Ottawa courting Quebec

by Louise Haberl

The freedom of Canadian citizens but not immigrants to choose their language of education as part of a charter of human rights in a revised constitution was a political concession to Quebec, federal Minister of Science and Technology John Roberts admitted at a lecture sponsored by the Political Science Students Association Friday.

"We would like to incorporate complete freedom of choice with respect to language, but we are not prepared (at this time) to make provisions for immigrants," Roberts said.

The decision to restrict choice of language of education to only Canadian citizens was taken by the federal government to get Quebec's support for a constitutional amendment package, explained the minister.

Asked if he felt that the proposed amendments would change the force of Bill 101, Roberts told the Daily:

"No...not if you argue that the major impact of Bill 101 has been a limitation on the rights of francophones, not the rights of anglophones."

"I don't think the danger to Quebec language and culture stems from anglophones coming to the province and having their children educated

in English. A greater danger would seem to be that of francophones educating their children in English."

"Another danger, which I'm not sure is a realistic danger, but one which is perceived, is the situation of immigrants coming to Quebec and having their children educated in English."

During the question period of his talk, Roberts addressed the question of women's and native rights in an entrenched charter of rights.

Although he believes a charter of rights would be "no absolute guarantee, no magic wand" in solving the problem of discrimination against women and native peoples, Roberts said that a court of law dealing with the cases on an individual basis would best serve the interests of "minorities."

Roberts argued that within parliament the majority rules, and therefore minorities often suffer as a result of the popular will.

Asked what the Liberals hoped to gain by invoking

closure on the constitutional debate, Roberts said:

"We felt that there was not much new to be said after three weeks of debate. It is really nothing extraordinary or outrageous."

"We have a list of topics that have to be discussed: the budget, energy proposals, the Bank Act. Continued constitutional debate would impede work on these issues."

Roberts was also asked whether he thought the government's proposal to unilaterally patriate the constitution was a divisive influence among the provinces.

"Specifically, the action is not unilateral. We have the support of the NDP, we also have the support of the government of Ontario, and the government of the province of Ontario...Unilateral doesn't mean not unanimous."

"We have the support across the country and in every region. Mr. Clark himself has said that there is popular support for repatriation."

## BNA patriation not constitutional

by Alayne Adams

Gerard Godin, a key figure in the Parti Quebecois, says Pierre Trudeau's plan to patriate the BNA Act is unconstitutional.

Speaking at a panel discussion at McGill Saturday, Godin said: "The actions taken by the federal government blatantly infringe upon the rights of the provinces as defined in Sections 92 and 93 of the BNA Act."

"I urge all democrats to oppose this coup de force," he said.

However, Godin said he was not completely opposed to the Liberal plan to entrench rights in the constitution. He described his position on the issue as "Yes with a but."

"The Liberal's machiavellian plans are like a piece of fillet mignon with a topping of horse manure," said Godin.

Andre Forget, a Liberal MNA said the entrenchment of linguistic rights was necessary because Canadian society is heterogeneous in nature.

"The cleavages in society; linguistic, religious, political, and regional are permanent."

"We ought to favour the insertion of a Bill of Rights into the constitution to deal with these cleavage-causing issues," he said.

Henry Milner, president of the Committee of Anglophones for Sovereignty-Association (CASA) and political science teacher at Vanier College said the issue of a Canadian Bill of Rights poses a dilemma that can't be solved.

"The Quebec national homeland will create a problem in putting a charter of rights into the existing constitution," he said.

Milner said any attempt by Ottawa to protect minority rights will be seen as a power play infringing on the collective rights of Quebec.

McGill Political Science professor James Mallory described the question of whether Canada should have an entrenched Bill of Rights as twofold: what it means to have one and the effects of having one.

"Rights without a remedy is an empty thing."

"Rights have meaning if enforced. However, enforcement is not always enough. It must be recognized that some rights to be effective must be internalized" he said.

"Entrenchment adds an element of strength to law," said Mallory.

However, he foresaw difficulties with entrenchments such as overloaded courts and increased power of judges, who are not democratically accountable.

Frank Scott, a renowned constitutional expert and a McGill law professor echoed Mallory's concerns.

"If you leave the Bill of Rights, or put it into an entrenchment clause, you place the law into the hands of judges. If not, the control will stay in the hands of elected officials," he said.



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12:30 PM: Dialogue '80 presents: "Mind Control" with Dr. Kropveld. This informative talk will make you aware of a major issue that may affect you directly.

Wed., Oct. 29

4:00 PM: "Soviet Jewry: First Hand Impressions" with Hanna Eliashiv who has recently returned from the USSR.

Fri., Oct. 31

6:00 PM: An "Oneg Shabbat". Come and enjoy a relaxing evening of fine food and pleasant company following services. Cost: \$3.00 for discount card holders; \$3.50 others.

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## HEAR RUSTY!



## DAILY SCIENCE ISSUE

## Do nuclear reactors fuel the arms race?

by Heather Tisdale

Nuclear proliferation is a problem with a tantalizingly simple solution, but we are unlikely to see that solution implemented.

Proliferation entails the selling of not only weapons to other countries, but, as is more common, the selling of nuclear fuel, which can be used to make weapons.

May 18, 1974, is an important date in the recent history of nuclear proliferation. On that day India exploded an atomic bomb, becoming the sixth nation in the world to do so. Canada had been one of the countries to give India nuclear assistance in the forms of information and materials.

After the explosion Canada withdrew its support and enforced more stringent regulations before it reopened its relations with India.

A short list of other nations with nuclear capability reinforces the image of a gathering nuclear storm.

AECL (Atomic Energy of Canada Ltd.) lost a reactor sale to Argentina in October 1979. West Germany's Kraftwerke Union was awarded the contract to build Argentina's third nuclear station. Argentina is independent of international safeguards. It uses unenriched uranium, which generates much more plutonium than a conventional light water reactor.

Iraq has a small research reactor and is soon to purchase enriched uranium from France. There are unconfirmed reports that Iraq receives financial help for its nuclear program from Libya.

South Africa possesses a uranium enrichment plant. CBS News claimed in February of this year that a mysterious blast occurring off the Atlantic coast of

South Africa was the testing of a nuclear bomb by Israel with the cooperation of the South Africans.

South Korea, Taiwan and Brazil also have reactors.

Each of these countries achieved nuclear weapons potential from materials intended for their civilian nuclear programs.

The United States and other nuclear powers have exported 111 nuclear plants. Each of these exported reactors produces enough plutonium to build an atomic bomb every two weeks.

But the failure of the Nonproliferation Treaty — originally signed by the superpowers to prevent the escalation of the arms race — is mainly due to the nuclear superpowers rather than the smaller, newly nuclear nations.

It is only logical to assume that the more nations possessing nuclear weapons, the more likely it is that a local war could escalate from conventional means to nuclear ones.

General Electric and Westinghouse account for 50% of total international sales of nuclear power plants. These foreign sales bring down the per-unit cost of power plants for the domestic market, and with sales of over a billion dollars a year, nuclear exports are important to the American balance of trade.

The May issue of *Science* reported that the NRC had opposed the export of a controversial nuclear reactor to the Philippines, deciding as a matter of policy not to consider the safety issues raised by several environmental groups. Environmentalists were opposed to the Westinghouse reactor because of its proximity to the earthquake zone and a

dominant volcano. It was decided that a review of this decision would be too time-consuming and controversial. A spokesman said that lengthy reviews would cause foreign purchasers to go elsewhere.

This year, Gerald C. Smith, the President's special ambassador for nuclear proliferation, proposed that the U.S. softpedal its opposition to aspects of nuclear energy policies of its allies and trading partners.

The INFCE (International Fuel Cycle Evaluation) met in February. This marked the first global attempt to devise controls for the nuclear market, but it was unsuccessful.

"Reliance on treaties and guidelines is nothing more than a game of self-delusion," says Gordon Edwards, chairperson of CCNR (Canadian Coalition for Nuclear Responsibility).

If a country decides unilaterally to unleash its nuclear potential, regulations cannot be enforced.

In countries such as Argentina, a sudden change of government could mean the country would reverse its previous commitment not to use its nuclear potential.

Edwards believes that the only way to curb proliferation is to stop dealing in overseas nuclear exports.

"We are already teetering on the brink of international catastrophe, and for Canada and other nations to be selling nuclear materials is irresponsible," says Edwards.

Prime Minister Trudeau addressed the UN General Assembly on the topic of disarmament in May, 1978, and

concluded that "the best way to curb proliferation would be by the strategy of suffocation."

This would be achieved by a comprehensive test ban, prohibition of flight testing of new nuclear vehicles, prohibition of production of fissionable material for weapons, and limited spending.

"I would like to see Canada playing a role in disarmament," says Edwards. "Canada has been cowardly in not taking a strong position. The US produces 2-3 bombs a day and we haven't even denounced this."

Edwards calls the Nonproliferation Treaty "a contemptuous and fundamentally hypocritical document."

It was originally conceived to end all weapons production, but instead escalated into an arms race between the U.S. and the Soviet Union. Most underdeveloped nations perceive it as an inadequate document and use it to their advantage."

Charles Brison, a public relations officer for AECL states, "the AECL's policy is that of the federal government, and it is currently under review."

He emphasizes the importance of nuclear exports for the balance of trade.

The policy of "suffocation" would quell nuclear proliferation and decrease considerably the environmental and potentially fatal hazards of escalating weapons production. But it is unlikely that the balance of trade will be sacrificed in order that a more fundamental goal — survival — may be achieved.

## THE FAITH OF CATHOLICS

with

Fr. Harry Dooley, CSP



A course offered by the McGill Newman Centre for Non-Catholics who want to learn about Catholicism and for Catholics who want to renew their faith.

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## TOPICS TO BE DISCUSSED

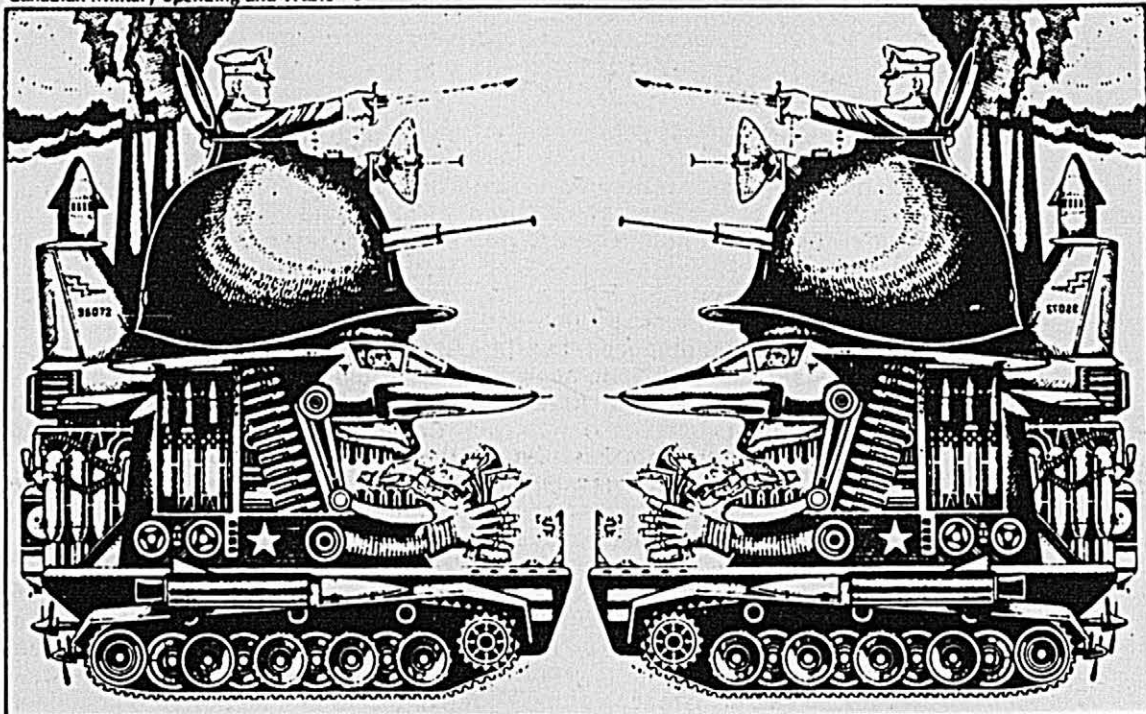
- 1) Constitutional Amendments
- 2) Student Conference on Energy
- 3) Daily Autonomy

Come and meet your Executive Officers



## DAILY SCIENCE ISSUE

Canadian Military Spending and Waste 6



## Nuclear terrorism unlikely

by Julian Betts

The chances of nuclear terrorism are on the whole slim, according to John Robson, a McGill physics prof who teaches a course in the application of nuclear energy.

Robson says that plutonium stolen from a nuclear energy plant would be of little use to terrorists for two reasons.

"First," he says, "whoever got a hold of it would have to extract it. They would have to have facilities for extracting it under high radiation fields."

"The second, and far more serious problem, is that the plutonium they'd be getting from fuel rods of reactors would contain not only plutonium 239 — which is what they want — but it would also contain plutonium 240, which is not fissile (susceptible to splitting) to anything the same extent as 239."

Since these two isotopes of plutonium have such similar physical properties, they cannot be easily separated. Consequently, says Robson, "you could set off a bomb, but it wouldn't be big."

The longer a fuel rod is left in a reactor, the more plutonium 240 builds up. So only during

the initial stages of use will the fuel rod contain "bomb-grade" plutonium, having high concentrations of the 239 isotope.

Robson says that "if you're taking (fuel) from a power plant, you would have to take it out well ahead of normal. This would require heavy collusion from the operators of the power plant which to me seems inconceivable."

Far more conceivable, he thinks, is the theft of biological weapons. They are much more easily used than nuclear weapons, and could produce "more serious consequences" such as epidemics.

As for the development of nuclear bombs by countries rather than terrorists, recent history proves the link between nuclear energy and arms. For example, shortly after Canada sold a reactor to India, the latter exploded a bomb.

Robson says third world countries could make bombs from time to time, but they "don't have the ability to deliver them accurately. There's a big difference between having bombs and using them...Unstable countries would be very hesitant to set off a bomb

knowing the reprisals they would face."

When asked about the moral responsibilities of scientists working for the military during peace time, Robson responded: "Some will have pangs of conscience. Others will think that maybe good can come out of it. They must worry from time to time. But you tend to get on with the job...Perhaps these people could be better employed in other areas."

"Scientists could say that they have saved an enormous number of lives. Since 1945 there have been no major conflicts. One of the reasons for this is the very high deterrent value of these weapons. But it would be very dangerous if a certain country got a certain amount of power and used it unscrupulously...I admit it's somewhat frightening."

"Science has always advanced in an unplanned manner. We talk of national plans, but advances in science are made by people having bright ideas and working in an unrestricted manner. You're never going to stop that — and I hope you don't."

Physicists  
as  
Sinners?

by Jean Cypher

Robert Oppenheimer, the scientific coordinator for the atomic bomb project at Los Alamos, once said: "...the physicists have known sin; and this is a knowledge which they cannot lose." Remarks such as this raise the question of whether and to what extent scientists should be responsible for the application of their research in matters of defence.

According to Mario Bunge, professor of philosophy with the Foundations and Philosophy of Science Unit at McGill, science itself does not play a large part in weapons design. "The people who work on nuclear arms...are technologists, not physicists. The development of arms involves only applied research." Scientists working on defense contracts are called upon in their capacities as consultants or engineers, rather than as scientists.

As an example, Bunge refers to the Jason Division formed by the Pentagon during the Vietnam War. "They had at least a dozen Nobel Prizewinners, including men like Dellman and Wheeler, who, for a good consulting fee, advised the Pentagon on the design of new weapons. But this was not scientific knowledge which they used. They used their talents and skills. In effect they worked as engineers."

As for the ethics of this kind of venture, Bunge says, "I think that human beings in a democratic society should not put their ingenuity, their skills, in the service of destruction — no matter what field they work in. Everyone should work for peace, for disarmament."

The scientists working on the atomic bomb did not intend it to be used for such destructive purposes, according to Bunge. "Truman used the bomb against the advice of the scientists...Japan, several weeks before the bomb was dropped, asked the U.S. for a settlement. But their request was ignored. It was ignored because this presented Truman with a great opportunity for showing the world who was master. Many scientists were against this. For example, Einstein, Niels Bohr, Weiner, and others reproached the government for its action in a publication of *The Bulletin of*

*the Atomic Scientists* in order to alert the public to the dangers of nuclear war."

The misuse of the atomic bomb highlights the vulnerability of the scientists' position in deciding how his research or skills should be applied in national defence. According to Bunge, "The scientists are not usually...listened to. They do not have a lobby in Canada."

Because scientific publications are all available to the public, scientists can place no restriction on the uses to which their findings are applied. For this reason Bunge believes there should be a lobby for scientists, as well as scientists who sit in Parliament.

"But there is a prejudice about (scientists becoming politicians) here. Anyone who does this damages his scientific reputation. I think this comes from the old Greek prejudice that learning must be pure, that it is a corruption to mix it. There can be no corruption of science, but there can be a kind of a prostitution of it, for example, by using one's skills for destructive ends. The good scientist can serve his country and his fellow scientists by actively avoiding putting his skills to these ends."

There has been a great turnaround since WWI, when (according to R. Gilpin in *American Scientists and Nuclear Weapons Policy*) Rutherford refused to aid England in the war effort, saying that his discoveries about the atom at that time would "eclipse the importance of war." Due, in part, to those discoveries, the threat of nuclear war now shadows all endeavors, scientific or otherwise. Scientists cannot work isolated from and unhindered by world events — because of their escalating concern as citizens. Bunge identifies this concern saying, "There can be no victory in a nuclear war." "But," he adds, "the solution does not rest with the scientist. It is the citizens who should address the political system...Responsibility (for nuclear disarmament) rests with the people...There should be more personal participation in politicians."

Certification  
Programs

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## Dates:

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Price: \$145.00

Registration deadline:  
Nov. 5, 1980

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Picks-up where basic first-aid courses leave off. Oriented towards professional outdoor leaders with the emphasis being placed on accidents relating to their activity. Ideally suited for teachers and recreational leaders. There are two levels of certification offered. Basic Wilderness 1st Aid and Advanced Wilderness 1st Aid.

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Mon. Dec. 15 - Thurs. Dec. 18  
from 18:00 - 22:00

Total hours: 16

Price: \$75.00

## Advanced:

Sun. Dec. 14

09:00 - 12:00 13:00 - 18:00

Fri. Dec. 19

18:00 - 22:00

Sat. Dec. 20

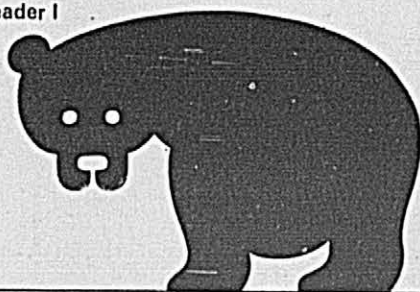
09:00 - 12:00 13:00 - 18:00

Total hours: 24

Price: \$100.00

Registration deadline:  
Dec. 8, 1980

For Registration or further  
information, please call W3  
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## DAILY SCIENCE ISSUE

# Guns or Butter: The social costs of the arms race

by Richard Goldman

**Item:** On a worldwide basis, society now invests \$16,000 a year per soldier, \$260 a year in the education of a school-age child.

**Item:** In the United States, the strongest military nation in the world, over 25 million people live in poverty and 10 million children have never seen a doctor.

The statistics of nuclear armaments can only be described as mind-boggling. The nuclear powers presently control the force of 1,000,000 Hiroshima bombs — about 3 tons of TNT for every person on earth, enough to blow up every city in the world seven times over.

This unfathomable destructive potential obviously poses a grave threat to people everywhere. Clearly, the stockpiling and perpetual refinement of nuclear weapons has done more to erode than to enhance our security, and threatens the entire human race's prospects for survival.

**\$1 billion can create  
55,000 military jobs  
or 98,000  
public service jobs**

But the threat of self-destruction, ominous though it may be, is not the only threat posed by the arms race. Even if no shot is ever fired, the spiralling expenditures for weapons laid out by industrialized and third world nations occur at tremendous cost to the standard of living and prospects for social development of people in both rich and poor nations.

At the heart of the matter is the competition between military and social priorities, "guns and butter" as it is often expressed. Because NATO countries have agreed to increase defence expenditures by three per cent above inflation every year, social programs are either being cut back or losing the race with inflation. In the U.S., President Carter has promised a five per cent increase in real military spending over the next five years, which translates into more than one trillion dollars of new guns by 1985.

As popular thinking goes, this massive injection of military spending should give the recession-ridden North American economy a much-needed boost. We are, after all, suffering from 10 per cent inflation and 10 per cent unemployment. The fact is, however, that military spending is a heavy burden on industrialized economies and only serves to exacerbate economic and social problems.

Military spending no longer increases employment the way it did at the time of World War II, because military technology has become progressively more capital intensive (as opposed to labour intensive) over the past decades.

As a result, dollar for dollar, an increase in military spending creates less jobs than an increase in almost any other sector. For example, U.S. government statistics show that \$1 billion in military expenditures creates 55,000 jobs, while the same billion dollars could create 98,000 public service jobs.

Not only does military production put less people to work, but it produces

goods and services which, unlike civilian goods, will not be consumed in the society at large. Pumping money into the production of rockets and tanks increases the amount of money in circulation without giving people products to buy with it, thereby fuelling inflation.

As no lesser source than the Wall Street Journal points out: "Defence spending, in this sense, is the worst kind of government outlay, since it eats up materials and other resources that otherwise could be used to produce consumer goods."

Military research also takes a heavy toll on society. It is estimated that one-half of all American scientists and engineers are doing military-related work. This concentrates technology into the defence and aerospace industries and away from civilian-oriented fields.

The result is a technological distortion which means, "we can and do build bombs that are capable of decimating any nation on earth, but seem to be incapable of developing a cheap and effective automobile pollution control device," according to Lloyd Dumas of Columbia University.

"In electronics the U.S.'s technology is highly developed, but the kind we know how to make is of a military type, not cheap and efficient civilian type electronics," says Dumas.

These negative effects of military spending will be multiplied if Carter's \$1 trillion spending plan is adopted. According to a study by Washington-based Employment Research Associates, this spending increase "will result in the impoverishment of major sectors of American society. Inflation will continue to reduce the real incomes of most working Americans... (and) drive interest rates to levels where only the government, the military industries, and the largest American corporations will have access to capital and credit. Unemployment will probably continue to rise." In short, a \$1 trillion military budget over the next five years will mean that the United States in 1986 will be a poorer and weaker nation than it is now.

It is the underdeveloped nations, however, that are the hardest hit by the arms race. Indeed, the militarization of the Third World, achieved mainly by weapons transfers from the developed countries, affects the entire process of development. Weapons are often supplied by industrialized nations to

**"Carter's 1 trillion \$  
military budget will  
leave the U.S. a  
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nation than it is now"**

Third World dictatorships (such as those in Latin America) to assure industrialized nations of access to the resources and markets of these countries.

In the era of colonialism, the colonial powers could employ their own forces directly to liberation movements in the colonies. Today, more subtle means of coercion must be used. This generally takes the form of the dominant power supplying and training local military forces to protect economic interests. This "technology of repression," which

includes extensive training programs, is used to control dissident groups and prevent the advent of policies contrary to the controlling power's interests.

Weapon transfers also serve to increase the economic dependence of underdeveloped nations in that the purchases often require great amounts of foreign currency. This puts pressure on the countries to boost foreign exchange earnings through the exports of natural resources and cash crops. This impoverishes the country further, creating a vicious circle of economic dependence on the arms supplier.

During the past two decades, foreign arms have moved into at least 100 developing countries. From a military standpoint, the effects have been disastrous. Of the more than 120 armed conflicts recorded between 1955 and 1979, all but six occurred in underdeveloped nations.

From an economic standpoint, the effects have been equally if not more

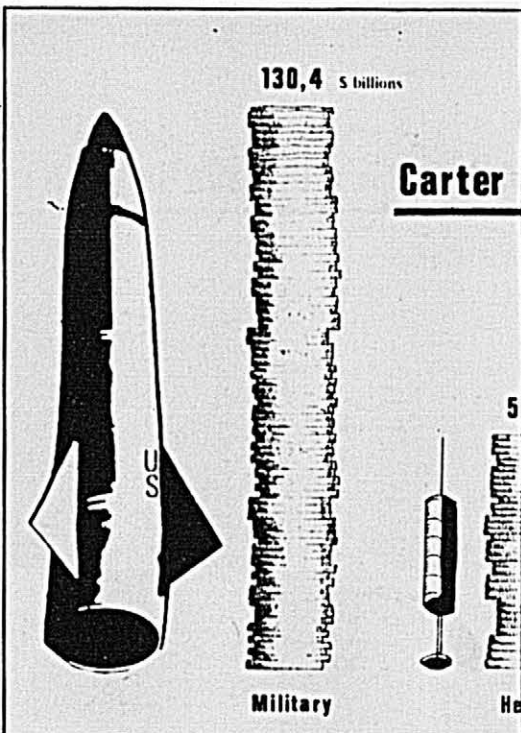
**"The arms race drains  
\$20 billion a year from  
countries in which  
half the children  
are out of school"**

devastating to Third World nations. The arms trade is draining up to \$20 billion a year from nations with an average per capita income of under \$500, in which half the school-age children are out of school, in which 300 to 400 million people are unemployed, and 90 per cent of the people have no reasonable access to clean water supplies. Countries such as India, in which tens of millions are illiterate and malnourished, continue pouring resources into their efforts to join the nuclear club.

Meanwhile, the gap between low income and developed countries continues to grow. Per capita income has increased by several thousand dollars in North America and Europe since 1960, it has grown only 20 dollars on the average in underdeveloped countries. Our standard of living is presently 60 times higher than that of South Asian people.

Clearly, even if we never suffer the consequences of a nuclear holocaust, we are paying the price of the arms race every day. But even diverting a small fraction of the vast sums spent on armaments could go a long way toward solving many of the world's most pressing problems. According to the report *World Military and Social Expenditures 1979*, diverting some 10 per cent of world spending — some \$42 billion — into development could produce the following "swords-into-plowshares" program (in billions of dollars):

|                                                |     |
|------------------------------------------------|-----|
| International program for clean air            | 5.0 |
| Safe water for all within the decade           | 4.0 |
| Family planning, maternal health services      | 1.5 |
| Primary health care facilities and personnel   | 1.5 |
| Development of renewable energy resources      | 3.0 |
| Training programs for young people             | 4.0 |
| R & D for labor-intensive, low-cost technology | 2.0 |
| Primary schools and teacher training           | 5.5 |
| Direct food aid for the hungry                 | 5.0 |
| Literacy drive emphasizing skills for women    | 2.0 |



Source: The United States Budget in brief, Fiscal Washington 1980, Pp. 79, 48, 39, 43

|                                      |     |
|--------------------------------------|-----|
| Vaccine protection for all children  | 0.5 |
| Development aid for the small farmer | 6.0 |
| Global program to wipe out malaria   | 2.0 |

Emphasizing that this proposal is offered not as an organized program, but as a stimulus to discussion and action, the report concludes: "With such a goal, the world at turn of the century could be quite different place. It would find that it could afford cleaner air and water. The tax burden would be reduced. There would be more jobs and food, less inflation, benign energy sources, better health care and education, quite possibly a deeper sense of fellowship replacing tensions and hate."

"What better way to celebrate the Year of the Child than to think of the world we would like the children of the year 2000 to have. A legacy of overwhelming public debt, dangerous nuclear wastes, a hostile world armed to the teeth or —? Perhaps \$42 billion a year could begin to prove that there are alternatives."

## McGill disarmament group formed

A disarmament group has been established at McGill to inform students about the issues of the arms race and the disarmament process.

"Project Ploughshares McGill has been set up to form a coalition with other student groups to study and publicize the possibility for survival of the nuclear threat," says Peter Bruck, acting president of the new club.

"We want to make disarmament a central issue at McGill, one that is talked about in classes and becomes part of the research going on here, an issue of general concern to the McGill community."

Ploughshares McGill has already become active on campus, serving as the organizing committee for McGill Disarmament week, which continues until Thursday.

Future plans include speakers, films, discussion groups and distribution of disarmament literature.

For more information, watch for their next meeting or phone Bruck at 845-8770.



## Administration Outlays in 1980



The destructive power of the atomic bomb comes from the breaking apart, or fissioning, of the nucleus of an atom bomb of Uranium 235. An almost instantaneous chain reaction leads to an enormous explosion. The energy liberated is dissipated as light, heat, blast, and radioactivity. Tons of earth and debris sucked up by the temporary vacuum created by the explosion become radioactive, and may be carried hundreds of miles before settling down to earth as fall-out. Exposure to radioactivity leads to death, cancer, genetic damage or radiation sickness, depending on its intensity.

A much greater explosive force, and more radioactivity, is obtained by the forcing together, or fusion, of tritium nuclei. This is the principle behind the hydrogen bomb. The United States exploded its first thermo-nuclear (fusion) device at Eniwatok Atoll in 1952. The Russians followed in 1953.

These developments greatly increased the stakes of the nuclear weaponry game. The bomb dropped on Hiroshima had the explosive power of

plosions of nuclear weapons. Pressing the propaganda advantage gained from this move, the USSR further enhanced its position by the address of Nikita Khrushchev to the UN General Assembly. Khrushchev's speech prompted the US - Soviet Joint Resolution of 1959. Sponsored by all nations, the resolution called for total nuclear disarmament.

A Committee of Ten Nations was set up in the wake of the joint resolution. Comprised of five members of the North Atlantic Treaty Organization (NATO), and five members of the Warsaw Pact, the committee was effectively scuttled by the violation of Soviet airspace by a US U-2 spy plane.

A Committee of Eighteen Nations replaced the defunct committee in 1961. It was made up of the original ten nations plus eight non-aligned nations, but achieved little. Tensions between the United States and the Soviet Union rose over Berlin and Cuba, and culminated in the Cuban Missile Crisis. The Soviet Union's attempt to place offensive nuclear missiles on the island of Cuba sparked a US naval blockade that brought the two nations to the brink of thermonuclear war.

After the removal of the missiles, the two nations negotiated a Partial Test Ban Treaty that prohibited the testing of nuclear devices in the atmosphere or underwater. The Test Ban Treaty halted a renewed round of tests by both nations, the fallout from which had contaminated the food chain of the entire world with Strontium 90 and Iodine 137.

Other bilateral and multilateral agreements signed during the sixties included a treaty that demilitarized the Antarctic. The Outer Space Treaty forbade the placing of military outposts or nuclear weapons in orbit or on the surface of any celestial body. The Treaty of Tlatelco declared South America to be a non-nuclear zone. Finally, the Nuclear Non-Proliferation Treaty attempted to halt the proliferation of nuclear weapons, or rather to reduce the number of nations that had access to these weapons. The latter was inspired by the Chinese atomic explosion of 1964, and by the development of the French nuclear strike force. Both France and China refused to adhere to the treaty.

After the breakdown of serious discussion in the Committee of Eighteen in 1964, disarmament initiatives were overshadowed by a new emphasis on arms control. Arms control aims to limit the number of weapons possessed by nations, rather than to abolish those weapons. As the result of negotiations between President Johnson and Premier Kosygin, the Strategic Arms Limitation Talks (SALT) began in 1969. These talks led to the SALT I agreement of 1972. The treaty limited the number of ICBM launchers, ballistic missile submarines, and Anti-Ballistic Missile launchers that each nation was allowed to possess.

The 1974 Vladivostok accords committed the US and USSR to work towards a SALT II treaty that would limit the number of delivery vehicles (i.e. missile launchers and bombers), and the number of missiles equipped with Multiple Re-Entry Vehicles (MIRVs). A MIRVed missile is capable of devastating a number of widely separated targets.

The SALT accords make no attempt to limit qualitative improvements to either nuclear weapons or delivery vehicles. Moreover, they place no limits on tactical nuclear weapons, those weapons designed for battlefield use and not for the strategic bombardment of the enemy's homeland. SALT I expired in 1977, while SALT II is mired in

ratification procedures in the US Senate.

Rough parity now exists between the superpowers in terms of nuclear weaponry, despite the rhetoric of American politicians. The American military has more warheads at its disposal, while the Russian commanders' missiles, though fewer in number, carry more powerful bombs. The amazing accuracy of the American missiles (a missile that makes a journey of 3000 miles will land within 750 feet of its target, and blast a crater a mile wide) has enabled the the U.S. to change its nuclear strategy. Earlier this year, Secretary of Defence Brown announced that the US had shifted its emphasis from assuring the annihilation of Russian cities in response to an attack on America, to possessing the ability to destroy Russian military and industrial targets. Opponents of the new "counter-force strategy" argued that it would increase the likelihood of nuclear war.

Today, the United Kingdom, France, and the People's Republic of China all possess small nuclear missile forces capable of delivering H-bombs. India exploded an atomic bomb in 1974, and intelligence sources indicate that Israel and South Africa most likely possess nuclear capability. The nuclear arsenal of the United States now contains missiles that may be launched from land, sea, air, and beneath the sea, as well as nuclear land mines, depth charges, artillery shells and torpedoes.

At the same time, the UN Committee on Disarmaments, now expanded to thirty-five members, continues to meet. In 1978, a special session of the General Assembly heard a Canadian proposal for a "strategy of suffocation". This idea involves a halt in the production of fissionable materials, a ban on the testing of bombs and delivery vehicles, and progressive cuts in the funding of

**Today the United Kingdom, France and China all possess small missile forces capable of delivering H-bombs.**

## The long and winding road to nuclear disarmament

by Bill Sheffield

Like two scorpions trapped in a bottle, neither the United States nor the Soviet Union can sting the other without being fatally wounded itself.

Dr. Robert Oppenheimer, director of the Los Alamos Scientific Laboratory during the development of the atomic bomb, once used this image to describe the position of the superpowers in the nuclear age. By 1980, the situation has so worsened that a nuclear exchange would destroy us all.

The atomic attack on Hiroshima of August 6, 1945 instantly killed at least 80,000 people. The world's nuclear arsenal now contains the equivalent of over a million Hiroshima-type bombs. What has gone wrong since the United Nations' very first resolution pledged member states to total nuclear disarmament?

After the end of the Second World War, the US alone possessed the atomic bomb. From this superior position, the Americans proposed the Baruch Plan of 1946. It called for the creation of a mammoth international agency with "managerial control of all atomic energy activities dangerous to world peace."

On the United Nations' Atomic Energy Commission (UNAEC), the Soviet Union objected strongly to the Baruch Plan, and called for an immediate ban on the bomb. While by 1947, the delegates of the USSR had conceded the need for inspection to ensure that no nation would be producing bombs, they insisted on having absolute control over observers within their borders. In 1950, the Soviets withdrew from UNAEC.

In the same year as it piously sponsored the Baruch Plan, the US formed the Strategic Air Command (SAC). By 1948, SAC had received new bombers and overseas bases, and was capable of launching a nuclear attack on the Soviet Union. By the time the USSR exploded its first atomic bomb, in August of 1949, the US had exploded eight, and had stockpiled several hundred others.

The outbreak of war in Korea, in June 1950, heralded the Cold War era of tense relations between Moscow and Washington that sparked an accelerating arms race.

12,000 tons of TNT; the bomb dropped on Bikini Atoll by the Americans in 1954 packed a punch equivalent to 15 million tons of TNT.

After eight years of impasse, in 1954 an Anglo-French plan was presented to a five power sub-committee of the UN Disarmament Commission. It appeared to wed Soviet and American disarmament proposals by advocating a three stage process. In stage one, military budgets were frozen. Stage two

**The world's nuclear arsenal now contains the equivalent of over a million Hiroshima-type bombs.**

saw the stoppage of nuclear weapons production and a cut in conventional forces, while in the final stage, further cuts in conventional forces were linked to the destruction of all existing atomic and thermo-nuclear bombs.

After initially rejecting the plan, the Soviets appeared to accept its major tenets in May of 1955. A Soviet statement at the same time shrewdly pointed out the chief problem of nuclear disarmament: either nation could easily keep a secret stock of bombs while ostensibly renouncing nuclear weapons.

This time, it was the Americans who hedged on the proposals, and no agreement was reached. Meanwhile, the arms buildup continued unabated, with both nations developed long-range bombers: the American B-52 and the Russian Tu-20. Five years later, the first Intercontinental Ballistic Missiles (ICBMs) were in service. At the same time, the navies of the superpowers were bolstered by the addition of nuclear-powered submarines capable of launching ballistic missiles.

After the Soviet plan of 1955 fizzled, the Disarmament Commission debated a variety of proposals ranging from the banning of nuclear weapons tests, to President Eisenhower's "open skies" aerial surveillance plan.

On the 31st of March, 1958, the Soviet Union unilaterally ceased its test ex-

nuclear weapons development. Needless to say, no nuclear powers have as yet jumped on the bandwagon.

The long quest for nuclear disarmament continues, despite discouraging signs. Jimmy Carter pledged to work for disarmament; his administration now speaks of new targeting procedures for fighting a nuclear war. US Presidential Candidate Ronald Reagan opposes ratification of the SALT II Treaty. The Soviet Union shows no signs of curtailing its arms build-up, and brazenly invaded Afghanistan in December. China officially considers nuclear war inevitable, and continues to test thermo-nuclear explosives in the atmosphere. On October 21, 1980, a cloud of radioactive debris from a Chinese test passed over Montreal.

For thirty-five years mankind has with the threat of nuclear war. At today's level of technology, a nuclear exchange is unthinkable. Disarmament remains a pressing concern despite the lack of progress in the field, and will continue to be of vital importance while nuclear arsenals capable of destroying civilization exist; for, in the words of Bertrand Russell, "Since Adam and Eve ate the apple, man has never refrained from any folly of which he was capable."



## DAILY SCIENCE ISSUE

## Drive for supremacy spurs arms race

by Ivan Slobod

The American Presidential elections next Tuesday are notable for highlighting the problems of those who would govern. The principal problem is the stubborn refusal of the U.S. government to face the reality that the United States is no longer number one on the block. Unless massive public pressure convinces the future U.S. president of this, the world may not survive the next five years.

The primary reason for this state of affairs is the American refusal to believe that the world is not what it once was. America's position as the world's policeman, free to interfere in its sphere of interests and defeat those who would stand in its way was unquestioned following World War Two. The role of policeman went unchallenged simply because the U.S. had the ultimate billy club, the atomic bomb. And at Hiroshima it had not hesitated to use this awesome weapon of death.

The atomic monopoly gave the U.S. the power, but not the right to act in any manner it desired. The United States was free to assume the role of neo-colonialist among underdeveloped nations. There was no challenge to this monopoly until the Soviet Union demonstrated its own atomic potential. This potential gave confidence to national liberation forces all over the world. The new balance of power brought a new force to be reckoned with, a divided planet.

Faced with this unexpected parity in the world, American policy makers were left in something of a quandary. Acting with customary lack of foresight, American planners decided on their strategy — attempting to outstrip the Soviets militarily.

According to the *Defense Monitor* of February 1979, "The U.S. has generally taken the lead in the nuclear arms race. The U.S. is a much richer country than the Soviet Union and has vast technological resources. The U.S. has been on the average, five years ahead of the USSR in introducing new nuclear weapons. The U.S. was the first to develop the atomic bomb, the hydrogen bomb, the inter-continental bomber, effective inter-continental ballistic missiles (ICBMs), modern nuclear powered strategic submarines, and multiple warheads (Multiple Independently targetable Reentry Vehicles, MIRVs) for missiles. The U.S. now appears to be on the verge of being the first to take the next significant step in the arms race: development of effective cruise missiles, superaccurate missiles, and mobile missiles."

The theory was that by pouring vast amounts of resources into armaments, the Americans would be able to resume their position of former power. They incorrectly assumed that the Soviets would not be able to match them step by step. And so, during the remainder of the fifties and through most of the sixties the Americans accelerated their arms output and the Soviets were obliged to maintain their traditional role of follow the leader.

When President Kennedy took office there was great world concern over the proliferation of thermonuclear weapons. These weapons differed from their atomic predecessors in that they were vastly more powerful and destructive. The Kennedy administration, reacting to public pressure, as well as recognizing sober reality, formally enunciated a new policy outlining future American nuclear strategy.

The M.A.D. Doctrine (Mutually Assured Destruction) held that deterrence would be achieved since any nuclear exchange would destroy huge populations on both sides. Therefore neither of the superpowers would ever consider using its nuclear potential because it would lead to the end of civilization.

M.A.D.'s implementation did not however usher in a new foreign policy shift on the part of the Pentagon. It seems there was no intention of pursuing legitimate long term proposals for peaceful coexistence as suggested by Soviet Premier Khrushchev.

According to Stephan Tiedtke, of the Peace Research Institute in Frankfurt: "In January 1960 the Supreme Soviet (Parliament) decided to reduce the Soviet army by 1.2 million men, that is by one third. In March 1961, J.F. Kennedy, the new President, announced a considerable expansion in U.S. armaments, amongst others an increase in the Defence budget of \$3.4 billion. In July 1961, the Supreme Soviet suspended troop reductions and increased the Defence budget with the assurance that this decision would be reversed provided a corresponding improvement in the international situation took place."

American policy would continue to be aggressive but always within its own zones, recognizing a socialist zone. History had created a divided planet.

When Richard M. Nixon took office the world was a different place and Vietnam had become a quagmire for policy makers. Vietnam proved that peaceful coexistence was a sham for the U.S.A. and that American foreign policy makers were determined to reassert their place of power in the world. The accelerated arms race was part of this strategy. However, despite the very best that the policy makers and the CIA could muster there were disappointments. Cuba, having won its independence, was no longer under American domination. Others, such as Vietnam, Angola, Chile, Ethiopia and Nicaragua followed suit.

In the meantime, technology was racing forward.

In order to understand the important advancements made in the field of war technology, an analogy would be useful. Just as the invention of the electron microscope allowed scientists to see things they had never before seen with conventional microscopes, new military hardware and software allowed planners to conceive of things that could never have been conceived of ten years ago. These new arms are more accurate, more dependable, more controllable and have greater firepower than anything ever invented.

From the *Defense Monitor*, October 1978: "Now by using new computer programs the Minuteman III inaccuracy is being cut in half, from 400 to 200 yards. Each Minuteman III so adjusted will be times as effective as the older Minuteman II. There have been modifications to the B-52 bomber as well as the Trident submarine. The Trident I missile has a range of 4,000 nautical miles compared with 2,500 nautical miles for the Poseidon. The range will both give the submarines more ocean in which to hide and allow each submarine to target more of the Soviet Union. At the same time, the lethality of each missile will be better than doubled... each weapon will be two and a half times as powerful (100 kiloton yield) and seventeen per cent more accurate."

Additionally, new land-based

missiles now have ranges that are greater than ever before. Instead of launching for Moscow and hoping for the best, a missile can now be precisely targeted over five thousand miles away.

This improved technology allowed for a completely reworked approach to traditional foreign policy goals on the part of Pentagon strategists.

During the Kennedy years there were many studies done attempting to determine the effects, both on the U.S. and the U.S.S.R., of a nuclear war. Using rough calculations planners were able to suggest that if forty million Russians could be killed then the Soviet economy would be effectively retarded for twenty years. This was the one figure that planners would always remember.

There were difficulties to be sure. But the blueprints anticipated most of them. If the American public could be convinced that nuclear war was survivable, and if the American people could be persuaded that only thirty to fifty million would perish, and if the American people could be convinced that this was an acceptable price to pay, why then a first strike against the Soviet Union was feasible.

A planned response was to emerge during the Ford administration.

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In 1978 the Carter administration foisted the new technology on the public in the form of the neutron bomb. The new bomb's principal achievements lay in its capacity to kill, burn, maim, cripple, damage, melt and destroy human flesh as well as be on target. It would, however, leave all property intact.

World outrage was swift, vocal and well organized. President Carter was forced into partial retreat and eventually the bomb's production was temporarily withdrawn.

After the withdrawal of the neutron bomb policy, new seeds were sown. They sprouted recently with the birth of Presidential Directive 59. When M.I.T. scientist and Szilard Award winner Bernard Feld heard of this directive he exclaimed, "My god have they taken leave of their senses?"

In its simplest form the Directive seeks to create a feasible first strike capability for the Pentagon, the reason being that the Directive allows the U.S. President to target sights for nuclear attack. This is not new. What is new is that there has been a shift towards what was considered inconceivable just two decades ago. Instead of targeting populated areas such as cities, as the M.A.D. doctrine suggests, Directive 59 shifts emphasis away from cities towards military installations and other technologically strategic areas of the Soviet Union. This could mean that the Americans are seeking a first strike

capability. There would be no point in firing on a silo after it has launched its missile, as would be the case if the American strategy were innocently defensive. This threat will allow the United States to be number one again, finally, and the Soviets will have no choice, or will they?

If there is any doubt that there are plans afoot to achieve this first strike capability one has only to read recent statements by the principal actors, including the President and his National Security Advisor. Brzezinski has stated publicly that not only are nuclear wars survivable but they are winnable.

President Carter has repeatedly pointed out that not only will he defend what he regards as U.S. vital interests in the Persian Gulf area, but anywhere else in the world. Once again the Pentagon has the President's ear. American voters are being asked to choose between three principal candidates who will all assume the same posture. They believe that the U.S. can be dominant again and stubbornly refuse to admit that they are playing a dangerous game of brinkmanship with the fate of the world in the balance.

And the fate of the world does lie in the balance. The truth is, despite administration rhetoric, that nuclear war of any degree is not survivable. Eminent scientists such as Bernard Feld and twice Nobel laureate Linus Pauling have made this clear again and again. Science author Nigel Calder has this to say, "People talk about fighting and winning nuclear wars. This is heresy. The idea that you could fight a nuclear war and not lose is the kind of phraseology that could kill us all."

This issue was the topic of discussion at a recent (September 1980) conference of Physicians for Social Responsibility in Collaboration with the Council for a Liveable World Education Fund, under the sponsorship of the Albert Einstein College of Medicine and the Columbia University College of Physicians and Surgeons. This is a short extract from that conference.

"A one megaton nuclear device exploded over New York City would probably kill 2.25 million people immediately, seriously injure an additional 3.8 million people, destroy all wood frame houses within five miles of the detonation point and inflict third degree burns on those living within eight miles of ground level zero — that is northern New Jersey, suburban New York and southwestern Connecticut. All animals would be blinded. A one megaton explosion is the equivalent of a million tons of high explosives. Its fallout would be 1,000 times more than the worst conceivable nuclear reactor accident. It would render 22,000 square miles of land uninhabitable for a month."

"A one megaton explosion over New York City would be the equivalent of about 70 Hiroshima bombs exploding at once. One million people would be killed within eleven seconds of the blast, many of them vaporized. Bomb shelters would become crematoria."

"If this planet," said President Kennedy, "is ever ravaged by nuclear war — if the survivors of that devastation can then endure the fire, poison, chaos and catastrophe — I do not want one of those survivors to ask another: 'How did it all happen?' and to receive the incredible reply: 'Ah, if only one knew!'"





## DAILY SCIENCE ISSUE

# Comment

## The race to end all races

"In the councils of government we must guard against the acquisition of unwarranted influence, whether sought or unsought, by the military-industrial complex. The potential for the disastrous rise of misplaced power exists and will persist."

**The farewell speech of  
President Dwight D. Eisenhower, 1961**

Today, with a fifth of the world's scientists working for the military, we can clearly see the truth in Eisenhower's grim but prophetic words. We have entered an age in which the public mutely accepts nuclear arms and huge military expenditures as "necessary evils."

These nuclear weapons exemplify the injudicious exploitation of science which currently plagues the world. Although the arms race is basically a political problem, the scientific community itself must assume a large part of the responsibility for the actual creation of the bomb.

Freeman Dyson writes of the scientists who worked on the Los Alamos project: "To have built the bomb, when their country was engaged in a desperate war against Hitler's Germany, was morally justifiable. But they did not just build the bomb. They enjoyed building it. They had the best time of their lives building it."

All scientists, and particularly the large number of military scientists, should have learned from Hiroshima that they must recognize and evaluate the ethical ramifications of their work. We can no longer afford to perpetuate the myth that science and society function independently of each other.

Scientists must shoulder the additional responsibility of alerting the public to potential problems brought about by technology before they become incurable. This duty falls upon them because, as initiators of scientific development, they are the first people to foresee problems caused by the application of their work.

The formation of nuclear disarmament groups such as Physicians for Social Responsibility

demonstrates the path which scientific researchers must follow in order to play an influential role in informing public opinion. Such lobbies can persuade government that advances in technology will not solve the arms race, and that only understanding will.

But instead of promoting international understanding, the superpowers rely more and more on brute military strength. The American government, plunging headlong into a massive arms buildup, has allocated almost 27% of its entire 1981 budget to military spending. This allotment represents a 46% increase over a two year period. The American government now spends more on national defence than on any other program. The Soviet Union spends even more.

Surely, any sane person would place more importance on the survival of his race than on the survival of his political system. Now, by perpetuating the arms race, we have inverted our priorities: petty political squabbles have become more important than life itself. Government budgets reflect this inversion of priorities. In 1979 the U.S. government spent \$105.2 billion on national defence, and a mere \$14.6 billion on all science and technology, pollution control, energy and space research combined. Nuclear disarmament would thus liberate a great deal of funds to fight with real problems such as the pollution and energy crises.

The U.S. has rationalized its spending patterns in the belief that only U.S. military superiority can ensure world peace. The U.S.S.R. has responded with a similar attitude. And so the arms race continues to escalate.

The military supports this escalation for its "deterrent" effect, and downplays the possibility of a nuclear war. But these two statements contradict each other, since it is the high probability of a nuclear war that creates the deterrent effect in the first place. The American policy of nuclear retaliation to an invasion of Europe destroys the argument that neither side would dare start a nuclear war. The three accidental nuclear alerts which NORAD has experienced in the last year also demonstrate the likelihood of nuclear war.

The nuclear arms race nurtures the fear of one

superpower for the other. As tensions increase, chances of a peaceful resolution of East-West rivalry decrease proportionately. If we truly want to ensure future peace, then the swaggering brinkmanship that has dominated Soviet-American relationships must end. After the xenophobic fog obscuring our vision clears, we will recognize nuclear disarmament, or the international control of nuclear arms, as the only rational solutions to the arms race. The only other foreseeable alternative is war between the superpowers.

But the arms race does not affect just these two nations. Weapons with the potential to damage the entire world should concern the entire world, even if only a handful of countries control the weapons. Undoubtedly, the reticence of non-nuclear countries to speak forth has tacitly promoted the arms race.

Canada, uncomfortably situated on the flight path between the superpowers, has perhaps more to gain from nuclear disarmament than any other nation. Thus, it should lead a worldwide bid for nuclear disarmament. The recent Chinese nuclear bomb test underlines the importance of beginning the disarmament movement now, before other nations fully enter the race.

Canada must also play a role in preventing nuclear proliferation. It has already helped India explode a bomb by selling a nuclear reactor, and has since attempted to sell a CANDU reactor to the regime in Argentina.

In the final analysis, nuclear disarmament serves the one undeniable common interest of East and West: survival. Yet both sides refuse to take the first step for fear of appearing weak. It seems that loss of face has become a crime far more hideous than that of threatening man's existence. People must realize that in the question of nuclear disarmament, the distinction between loyalty to one's country and loyalty to one's entire race disappears. A nuclear war would produce losers, and it might produce survivors. Nobody would win. In the common interest of survival, then, all mankind must put an end to the arms race, before it puts an end to the human race.

The choice is that simple.

Julian Betts

# Struggle for peace extends to Quebec

by Mark Spraggett

"It is not so much a question of trying to prove who is to blame for the arms race," says Edward Sloan, president of the Quebec Peace Council. "What is needed are negotiations and a scenario for step-by-step multilateral disarmament, unanimously agreed upon by all parties."

According to the Quebec Peace Council, the approach to resolving the arms race must be negotiation rather than confrontation. The statements made by the United States government in 1979, admitting to a military balance between the NATO and the Warsaw Pact forces, tend to support this

avenue of reducing the arms race. Says Sloan, "... SALT II and all the statements made by President Carter, the Pentagon and NATO, only confirm the existence of a military balance, and it is from this position of parity that a diminution in the arms race is possible. It is a golden opportunity for the world to take advantage of this parity."

The Quebec Peace Council (Conseil Québécois de la Paix) a chartered organization, serves as an umbrella group for organizations and individuals having the common objective of achieving world peace.

Founded in the mid-1960s, as the Vietnam Moratorium

Committee, its major thrust 1973-74 was as a protest movement against American involvement in Vietnam.

When it became evident that the people of North Vietnam would win the war, the Moratorium Committee, instead of dissolving itself, chose to broaden its horizons in terms of area and content. "The struggle for peace is an all embracing struggle, encompassing many facets of human activity, not just disarmament but also human rights," said Ed Sloan. With this perspective, the Quebec Peace Council was founded.

As a non-governmental organization, the Quebec Peace Council, like other organizations of the Canadian peace movement, acts as an indicator of public opinion, which the Canadian government can appeal to when preparing policy on peace initiatives.

The most recent government inquiry into public opinion took place in early October. A parliamentary sub-committee of the federal government, in preparation for the up-coming "Conference on Security and Cooperation in Europe" to take place in Madrid November 11, invited Canadian organizations to submit statements related to

issues the Canadian government should consider. The Quebec Peace Council submitted a statement suggesting the general orientation the federal government should consider in order to fulfill the aims of the "Conference on Security and Cooperation in Europe." Some of the proposals were:

1) to persuade member countries of NATO and the Warsaw Pact to stop the course of armaments;

2) to insist on substantial reductions in military budgets in order to focus attention and resources on solving urgent social problems.

The last paragraph of the memorandum sums up its general view: "The final Helsinki Act is one of the great achievements in favour of peace and détente. However, its spirit has, unfortunately, been violated many times, particularly with the decision to stock new nuclear missiles in Europe. Even so, it is not too late to progress beyond the Helsinki Accords, in the interest of all humanity."

According to Edward Sloan, the position adopted by Canada in 1975 at the Helsinki talks and outlined by Prime Minister Trudeau at the United Nations, while highly com-

mendable, tended not to be put into practice.

For instance, when NATO members decided in 1978 to augment military expenditures by 3% annually over a period of ten years, the Canadian government chose to follow.

Furthermore, when President Carter announced a new nuclear strategy in August, setting forth the acceptability of a limited nuclear war, the Canadian government voiced no objection.

Finally, the Canadian government has yet to categorically oppose the production and installation of the 'Pershing-2' and 'Cruise' missiles in Europe.

Says Sloan: "Who profits from the Arms Race? The people don't profit if Space Research Corporation sells arms to South Africa. During the Vietnam War, the Dow Chemical Corporation was making Napalm to kill the Vietnamese people. And now General Dynamics Corporation will be making control systems for the Cruise missiles to be installed in Europe."

For the Quebec Peace Council, then, the fight against the arms race is an important step in defending the inalienable right to human life and security.

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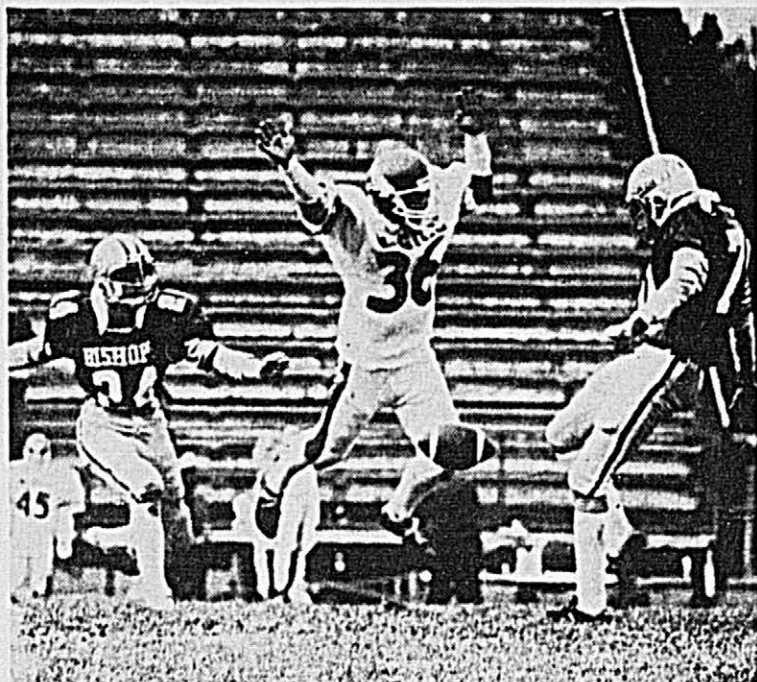
**Brahm Pascal**

**Heather Tisdale**



# DailySports

## Redmen hurtle past Gaiters, 26-16



Redmen defensive back Dennis Waide (36) takes dead aim at Andy Gates' (70) punt...

By Bobby Katz  
LENNOXVILLE — "Block that kick, block that kick!!!" is a phrase commonly screamed out by cheerleaders: the "blocking" rarely occurs.

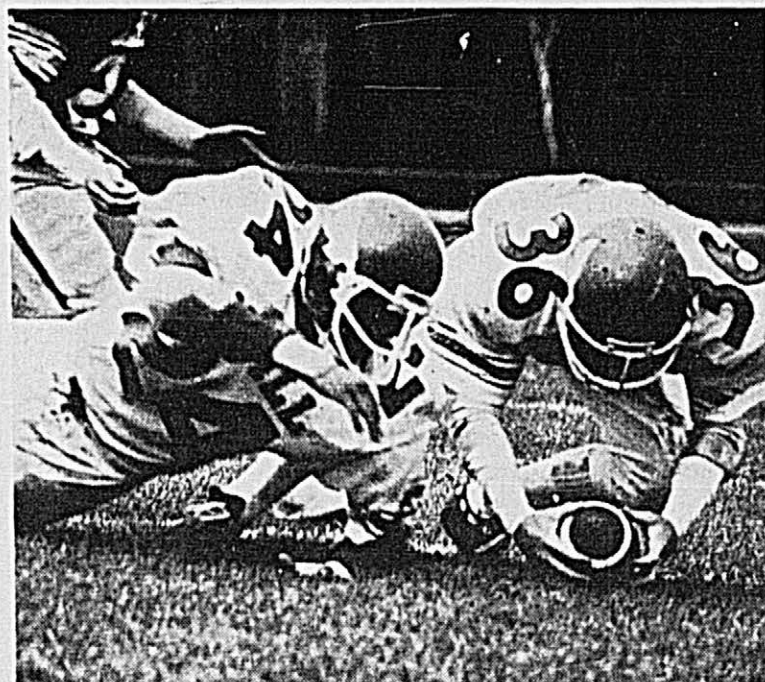
But Saturday afternoon in Lennoxville, the McGill Redmen demonstrated that they really can block punts as they defeated the Bishop's Gaiters 26-16 on a chilly and windy afternoon in the Eastern Townships.

The Redmen managed to dive in front of three successive Gaiter punts, leading to 15 McGill points that helped clinch second place in the O-QIFC.

Redmen defensive coach Sonny Wolfe explained the success of the Redmen in the special teams department; "It was nothing fancy. We just have gung-ho kids who wanted to get to that punt more than they wanted to get the punt off. You really have to hit these kids hard to make them stop rushing, one block just isn't enough."

The final score is not indicative of the flow of the game: the Redmen were leading 26-3 with three minutes and 13 seconds left in the game. Bishop's scored 13 points in the final three minutes as the Redmen lost their intensity and as second-stringers were given valuable playing time. Redmen quarterback Vic Pywowarczuk explained that "At that point in the game our enemy was not Bishop's. It was the clock."

"The game was a total team effort", added fullback Steve Droz, who rushed 10 times for 43 yards. "It feels great to be five and two. We're really



...and recovers his block with help from Colin Woon-Sam (24). This was one of three McGill blocked punts that led to 15 Redmen points.

### OQIFC Final Standings

|               | GP | W | L | T | PF  | PA  | Pts. |
|---------------|----|---|---|---|-----|-----|------|
| Ottawa        | 7  | 6 | 1 | 0 | 126 | 81  | 12   |
| McGill Redmen | 7  | 5 | 2 | 0 | 132 | 99  | 10   |
| Queen's       | 7  | 4 | 3 | 0 | 143 | 107 | 8    |
| Bishop's      | 7  | 3 | 4 | 0 | 115 | 126 | 6    |
| Concordia     | 7  | 2 | 5 | 0 | 119 | 153 | 4    |
| Carleton      | 7  | 1 | 6 | 0 | 73  | 133 | 2    |

#### Saturday's Results

McGill Redmen 26, Bishop's 16

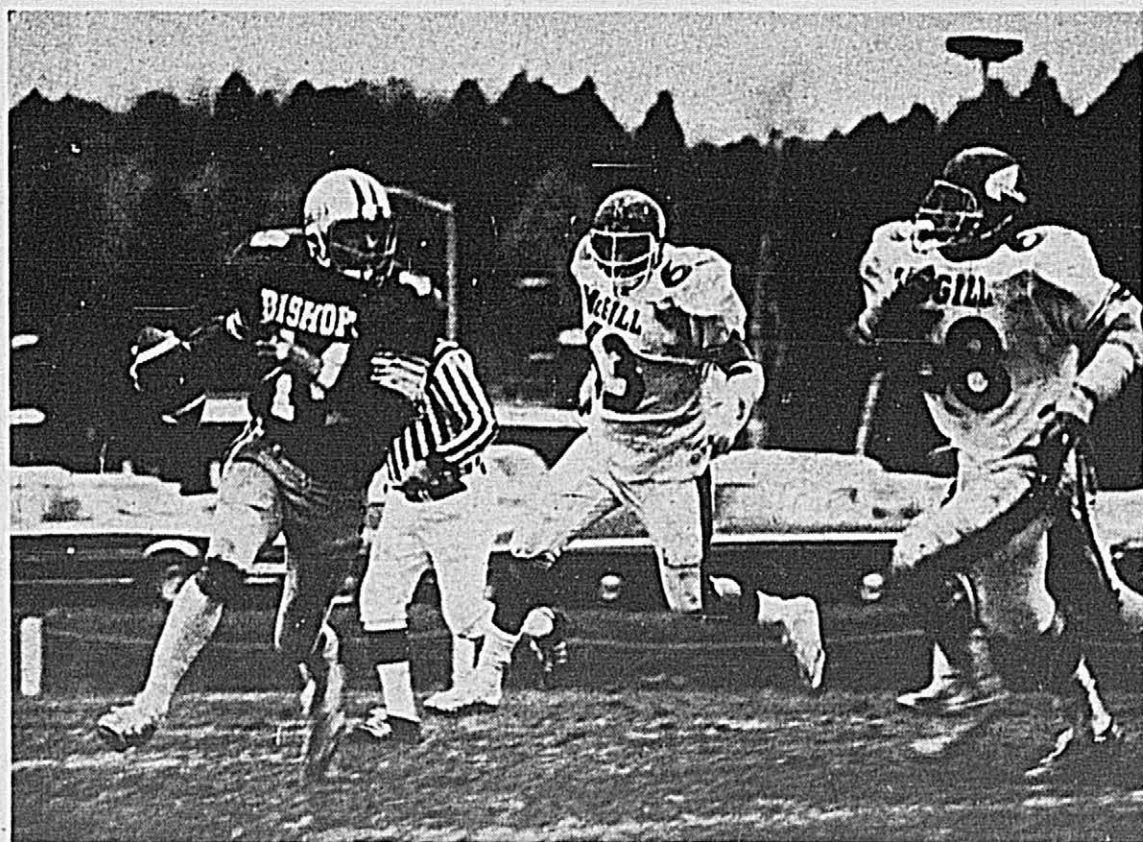
Ottawa 10, Concordia 9

Queen's 31, Carleton 4

#### Playoff Pairings

Queen's at McGill, time to be determined

Bishop's at Ottawa, Saturday, Nov. 1



McGill defensive linemen Yves Fiset (63) and Marc Joncas (68) chase Gaiter quarterback Peter Knee (14).

moving now and we've won three games in a row."

Droz is right; it was a total team effort as five Redmen runners gained 20 yards or more. The Redmen rushed for an average of four yards per carry, and 325 yards total offence all of this not solely due to the prowess of the Redmen backfield. The McGill offensive line has come together at a most opportune time. Redmen head coach Charlie Baillie emphasized that, "The offensive line did quite well. They opened up huge holes for the running backs."

"The line blocked great and the pass protection was fantastic. We had huge holes," Droz enthused. "They made our job easy. They opened such big holes that Bishop's defensive backs had to make most of the tackles on the running plays. This gets the defence tired and it opens up the passing game."

Did it ever open up the passing game. Pywowarczuk was six for 19 on the day, with two touchdowns, one interception, and he looked solid on the field. "It was tough to pass because of the strong cross-field wind," Vic said. "The ball was being blown away from the intended receivers. We worked it out and our strong inside running game really helped us."

The Redmen defence set the offence up beautifully in the second quarter as it managed to foil three Gaiter punts in a row.

The second blocked punt proved to be costly to both teams as Bishop punter Andy Gates recovered the loose ball in his own endzone giving the Redmen a two-point safety touch which tied the game up at three. The muffed punt also was the last play in which Redmen middle linebacker

Marc Lemery partook. He was helped off the field with what has been diagnosed as strained ligaments in his knee.



Marc Lemery

On the ensuing Gaiter kickoff the Redmen drove 59 yards in five plays for their first major of the afternoon. The drive was capped off by a beautiful 43-yard TD strike to tight end Scott Bertschy. Pywowarczuk was forced out of the pocket, dodging and ducking his way from would-be tacklers and finally throwing to Bertschy who ran into the endzone untouched. "Don't think that I'm a great scrambler", kidded a happy Pywowarczuk after the game. "It was fear, all fear. It's amazing what fear can do. It's just got to be the best motivator."

Forty-five seconds later, Redmen halfback Marc Lacelle ran three yards over the right side into the Gaiter endzone for the second Redmen major of the game. Lacelle's touchdown came after the Redmen blocked another Bishop's punt and recovered at the Gaiter three.

The final Redmen major came on a 25-yard Pywowarczuk pass to slotback John McGuinness. The pass was tipped in the endzone by Gaiter defensive half Mark Fabri and gobbled up by a sprawling McGuinness.



# Redmen, Martlets romp in basketball openers

## Redmen unkilt

### Golden Gaels, 107-81

by Michael Roche

The McGill University Redmen took over three quarters before getting their basketball game in full gear, but when they did, the Queen's Golden Gaels were more than happy to be making their way back to Kingston, 107-81 losers.

In the first half both teams had trouble controlling the ball and the results were many turnovers and generally sloppy play. Halfway through the second half, however, the Redmen regained their skills, the Gaels did not, and McGill ran off with the victory.

McGill had trouble with the Queen's 1-2-1-1 press and committed many turnovers, but fortunately, the Gaels were having just as much trouble with the Redmen's tenacious man-to-man defence.

The first real run of the game came when Redmen freshman Ron Penston came off the bench to score 8 of his 12 points to spark McGill to a 14 point lead with 4:34 left in the first half.

After opening up this lead, the Redmen ran into trouble again, and when Gael Rick Emerson made a three point play as time ran out on the clock the McGill lead had been cut to six.

The streaky play of the Redmen again took a turn upwards as the second half began. Led by the hot shooting of guard Mike Homsy, who had 8 points on the night, McGill ran off eight straight points before Dave Wilson hit for Queen's to break the streak.

Two minutes into the second half Redmen forward Mark Adilman picked up his fourth foul and coach Butch Staples had to go to his bench.

After the game Staples had nothing but praise for his bench: "We were in foul trouble but Carlo (Del Bosco), Ron (Penston), and Sylvain (Castonguay), really came through for us."

After Adilman exited, the Redmen attack sputtered and with 13 minutes left in the half, Queen's cut the McGill lead to four points.

Whenever Queen's threatened, however, the Redmen would find their game and run off a string of points. In this instance, rookie forward Willie Hinz, who had 22 points for the evening guard, Gord Brabant who added 17 points and several assists, and center Rick Rusk who had 23 points and 12 rebounds, nailed down the victory with a consistent offence and a defence which allowed Queen's only long range bombs.

As time ran down, and the issue was no longer in doubt, the Redmen began to open up and made the prettiest plays of the night. With one second left on the clock and the Redmen inbound under the Queen's basket, Brabant came over a pick set by Penston and sank a twenty-footer as the buzzer went to seal the 26 point victory.

After the game, most of the players were happy with the performance in which every player shot over 50 percent from the floor, but, as co-captain Hinz said, "We missed a lot of easy ones, it could have been a lot higher than 50 per cent."

Both the coaching staff and the players expressed concern about the excess number of turnovers but allowed that this was typical for an early season



Redmen forward Ron Penston (34) game.

Next week the Carleton Ravens visit McGill, and Willie Hinz, a native of the Capital region, said, "They've lost some of their starts like Cholock, Armstrong and Stoqua, but they still have solid players like Powers and Holmes, so we can't take them lightly."

Tip Ins: Queen's coach Jim Crozier is still carrying 15 players and has three more cuts to make...Perhaps that's the reason that the Gaels were still diving for loose balls when they were down by 24 with 25 seconds to play...The Tip-Off Dance after the game was a success after getting off to a slow start...

## Martlets shillelagh Golden Gals, 118-44

by Miguel Edery

The McGill Martlets got the 1980-81 basketball season off to a flying start Friday at the Currie Gym by trouncing the Queens Golden Gaels 118-44.

Martlet rookie forward Annette Kiss got the game on its way with a two-pointer after only 45 seconds of play, and keeping this fast pace, Kiss went on to score 10 points in the half. Small wonder she is rated one of the top female college ball players in Quebec.

Team captain Linda Schaapman kept the girls in red and white red-hot as she pushed them to set up plays, while scoring 12 points in the half herself.

The real surprise of the game was McGill's petite guard Annie Constantinides who was the high scorer of the game with 36 points, 14 in the first half alone.

Most of the McGill action was inspired by guard Karen Diaz. Her lightning speed and quick hands led her all over the court, breaking up futile attempts by the Golden Gals to set up plays.

Even though Diaz scored only five points in the first half her value to the team came from the way she set up scoring possibilities for the other players. Interviewed before the game, Martlets coach Hubert Lacroix said of Diaz, "She is the key to our inside game".

Halfway into the first half McGill had a commanding lead of 35-14. As the halftime break finally rolled in to give the harried Golden Gals a breather,



Martlet guard Karen Diaz

the Martlets had the game sewn up with a lead of 60-24.

The second half was no easier for the Golden Gals, who were 3-9 in the OWIAA Tier 1 last year. The hapless lasses only scored 24 points in the first half, with centre Alice France taking credit for six of them, and also for eight of their 20 Queen's points scored in the second half.

Queen's never gave up hope but it was in vain as the Martlets kept the pressure on throughout the game, scoring 58 points in the second half.

This bodes well for Lacroix's team as it didn't slack off the pace even though McGill had the game all but won. In fact, the Martlets shooting was sharper in the second half as they missed fewer shots.

The game was no garden party as the two teams piled up an unladylike 24 fouls each. McGill guards Linda Cesaratto and Karen Diaz took top honors with six fouls each.

Lacroix had nothing but unabashed optimism about the upcoming season: "If we get our injured and sick back on the floor we should be one of the top seven teams in the country." Martlet co-captain Marie-Josée Houde is out with a knee injury and won't be back for four weeks.

After the game Lacroix added, "If we keep up this pace we'll be a hard team to beat. We're shooting for the nationals."

This season promises to be a thrilling one for the Martlets and if Friday's game is any indication it promises to be a winning one as well.

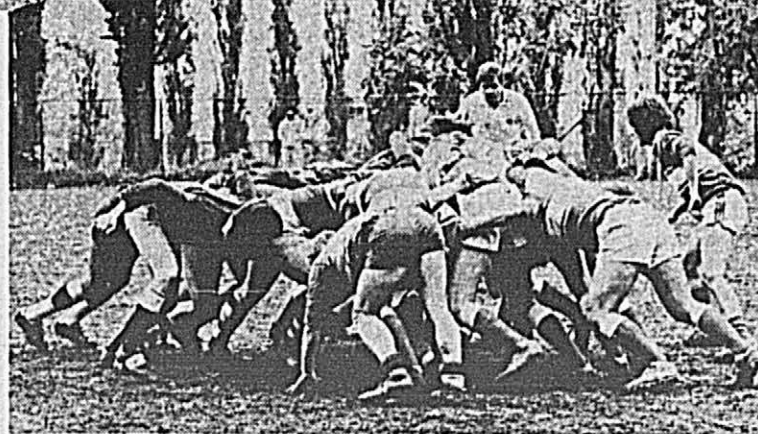


McGill Rugby Football Club



Champion Harvard team with Covo Cup

## Covo Cup



## Crimson beat McGill, 29-7

Dailypphoto/Paul Duff



# Disarmament is Your Business

Monday,  
Oct. 27, 1980

7:30 pm  
Leacock 132

speech by

**Jan Martenson**

Assistant Secretary-General of the United Nations  
and  
Head of the U.N. Centre for Disarmament

followed by a panel discussion with:

**Fabien Leboeuf**, Coordinator, Development and Peace  
**Margaret Capes**, Consultant PSBGM

**Fred Elson**, Minister, United Church of Canada

**Fru Berit Ås**, Member of Parliament, Norway

Chair: **Peter A. Bruck**, Project Ploughshares McGill

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McGill Debating Union  
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Tomorrow evening, 7:30, Leacock 132

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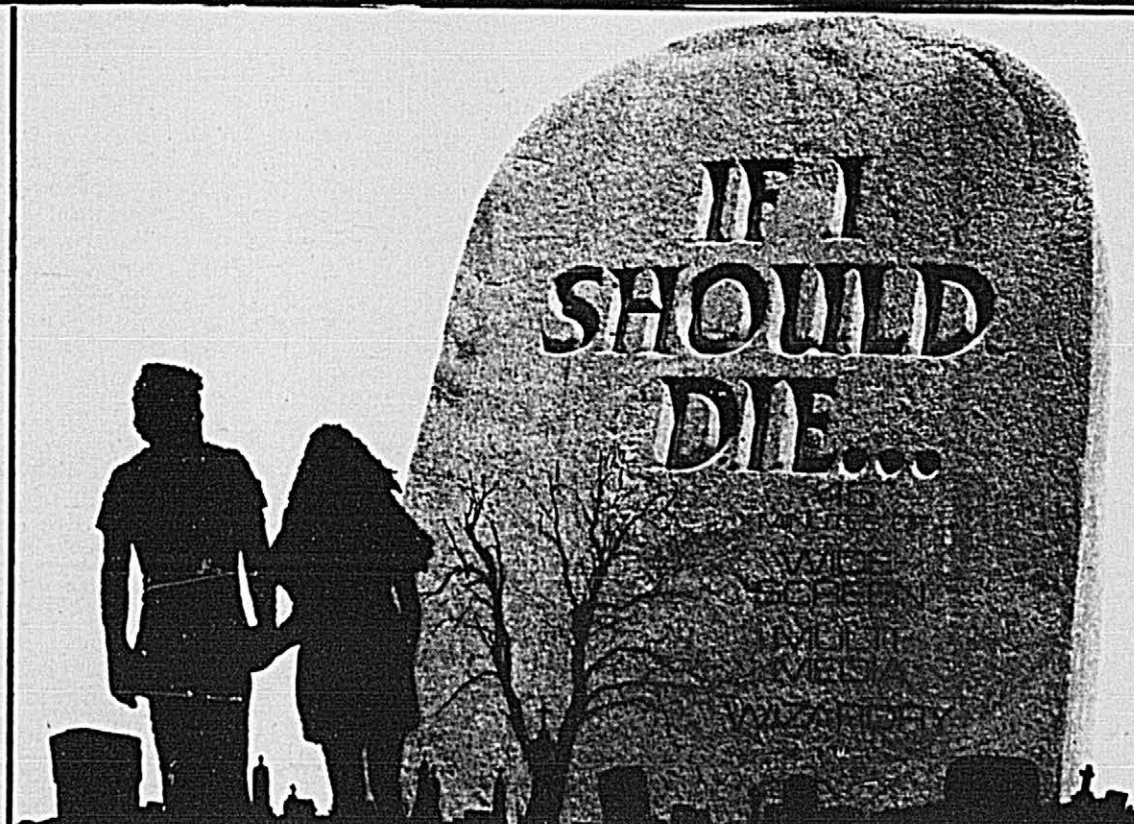
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**TODAY, October 27**  
**12:00 / 1:00 pm / 5:00 pm**  
**Union Ballroom—Student Union Building**

**PARAGON EXPERIENCE**

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